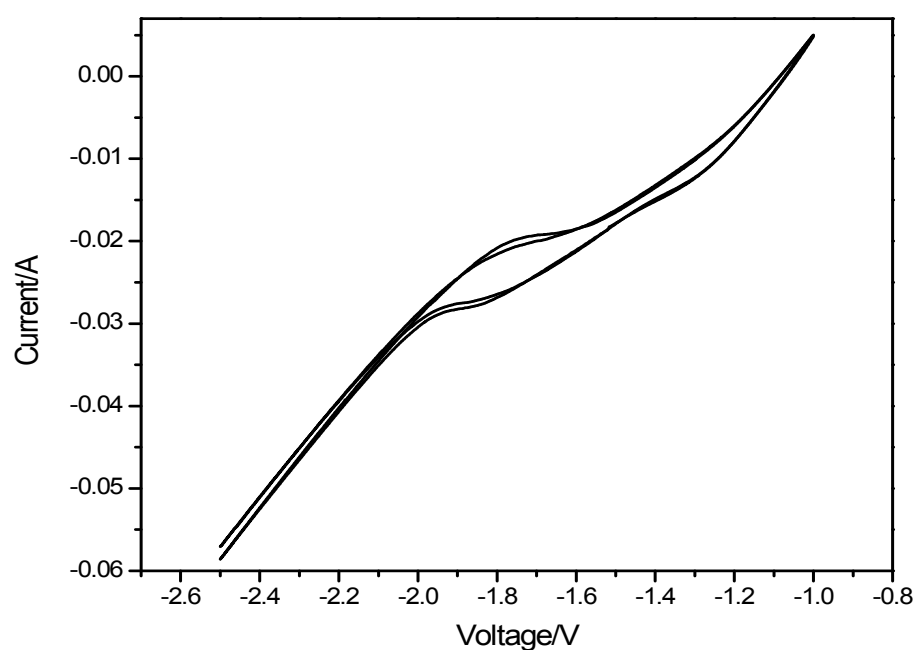


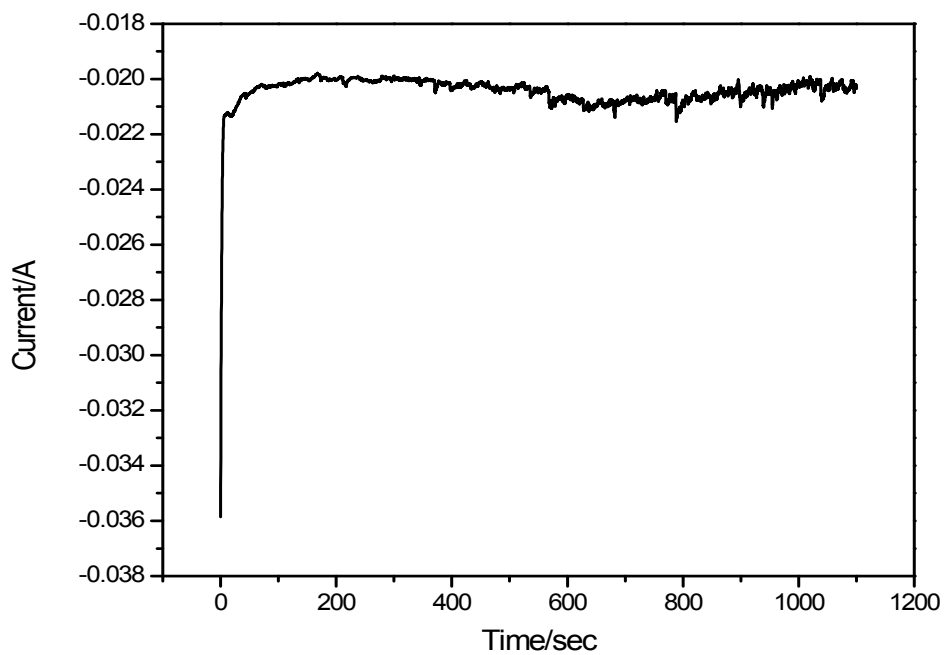
### Supplementary information

## Controllable Fabrication of Stable Superhydrophobic Surfaces on Iron Substrates

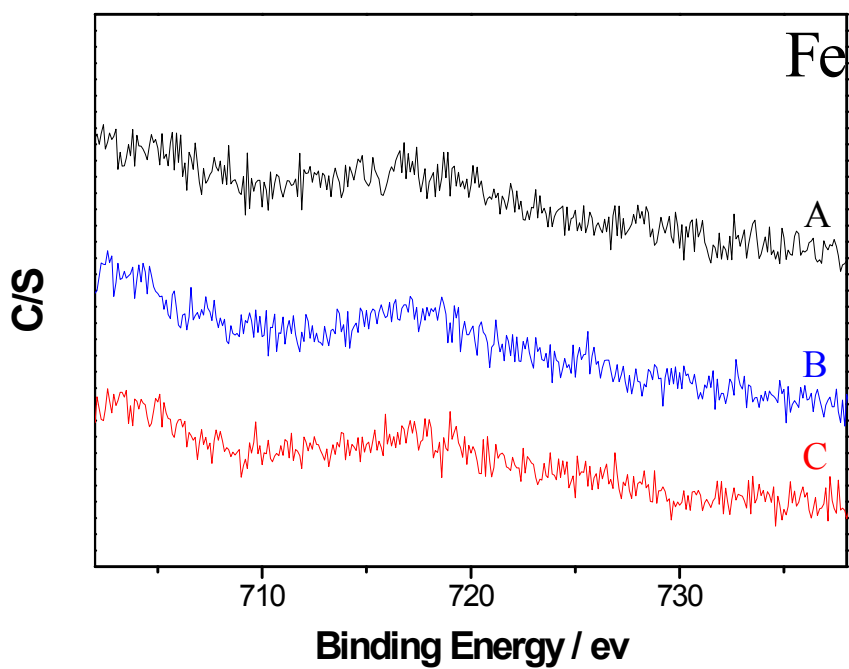
Haiyan Gao, Shixiang Lu, Wenguo Xu, Sabine Szunerits and Rabah Boukherroub



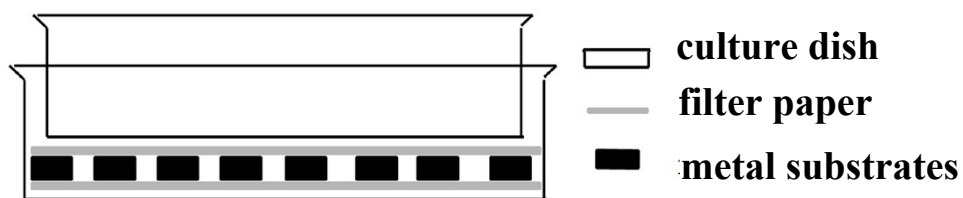
**Fig. S1.** Cyclic voltammetry for investigating the electrochemical behaviour of the system.



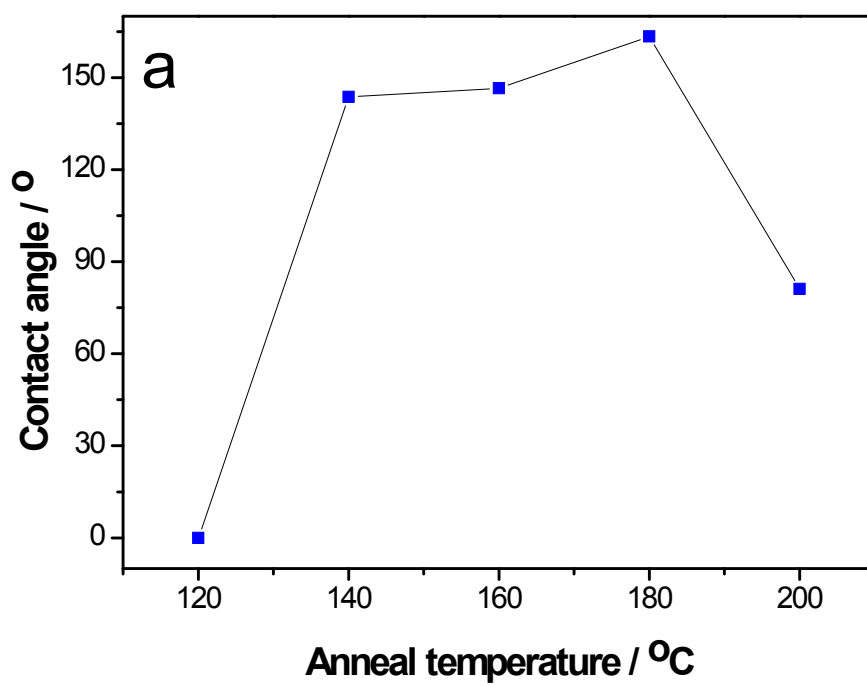
**Fig. S2.** The Amperometric I-t Curve in the electrochemical deposition process.

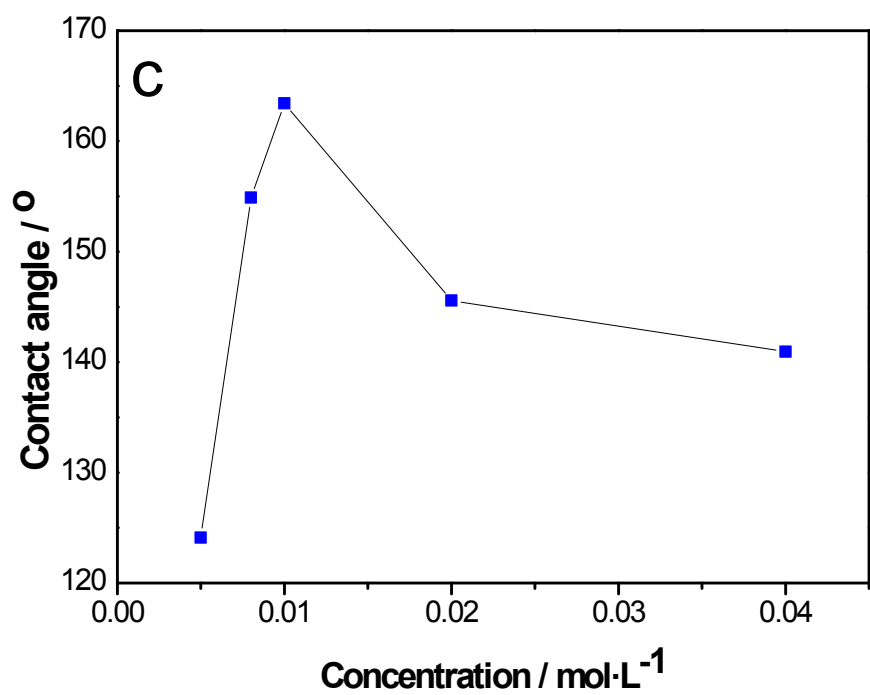
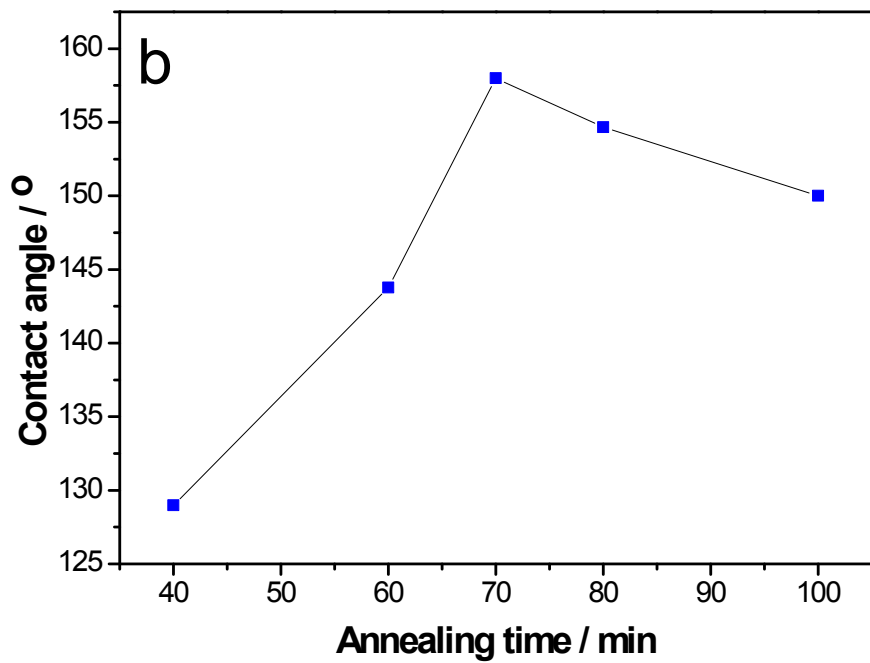


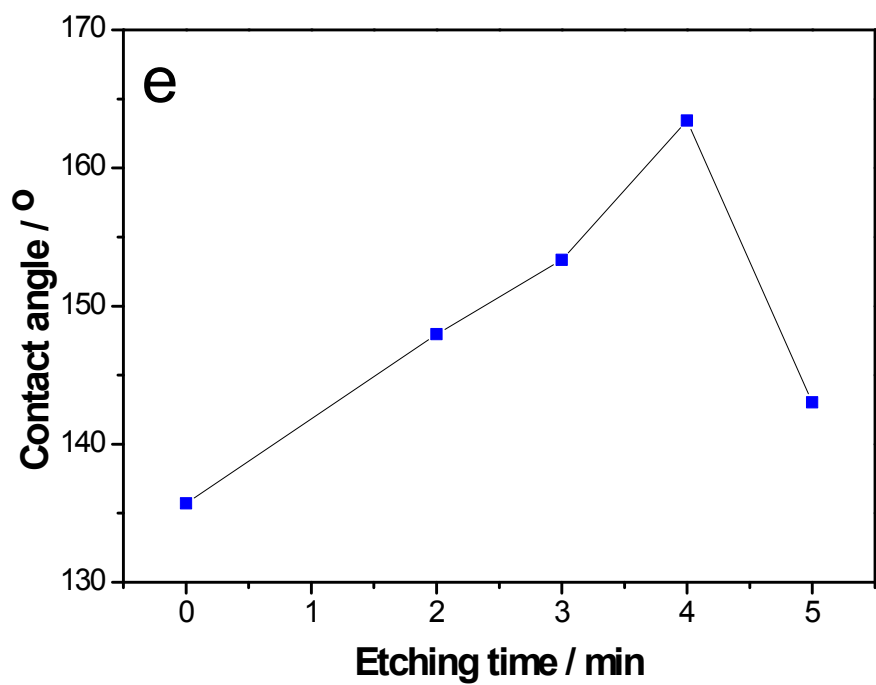
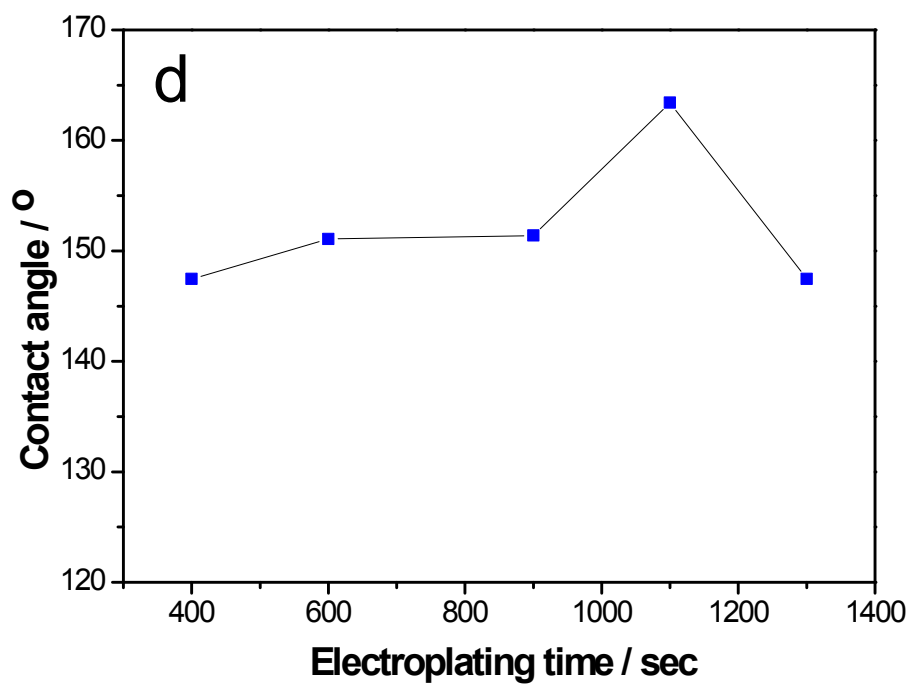
**Fig. S3.** XPS core level spectra of Fe 2p<sub>3/2</sub> (A) before annealing, (B) after annealing at 180°C for 70 min with filter papers and (C) without filter papers.



**Fig. S4.** The annealing device for SHSs.







**Fig. S5.** Variation of the water contact angle of the sample surfaces via electrochemical machining at -1.8V as a function of: annealing temperature (a), annealing time (b), electrolyte concentration (c), electroplating time (d), and etching time (e).